

1. An electric motor and a generator which is constituted using the electric motor as a power source and is used in an electric power line, characterized in that

thereby a power generation function is obtained.

in a case of a power generation function, the generator is activated and is risen up near to a synchronous speed and generator is carried out a switch-on operation;

thereby an induction motor excited on an electric power  
m line or an alternating current is constituted.

in a case of a propelling machine, a twist angle is made reversal, and

thereby without an alternation of a control circuit, a fluid transportation function is changed over to a power generation system.

in every case of a power generation function and a complex function of the electric motor and the generator,

in accordance with the detected data the stop or the power function is changed over to the power generation system, thereby a whole system is operation-controlled.

25           a wind direction guide is installed; and  
          an induction motor is constituted as a main electric  
          machine.

5           an inclined magnetic field is formed in a flow passage  
using one selected from a single permanent magnet, a single  
electromagnet, plural permanent magnets and plural  
electromagnet; and

7. A fluid power generation system having a fluid machine constituted by a blade, a water turbine and a rotating machine, and having an electric motor and a generator, characterized in that

in a case of a complex function of the electric motor and  
20 the generator, a rotation magnetic field is varied electrically,  
and the system is activated as the electric motor and the  
electric motor is risen up near to a synchronous speed.

a single conductive member or plural conductive members  
are provided with a sandwich shape in a laminated iron core;

and

on an outer peripheral portion of the conductive member,  
a groove is provided to not flow current shortly between rotor  
bars.

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9. A rotating machine having a stator and a rotor,  
characterized in that

a single disc member or plural disc member are provided  
in a laminated iron core of the rotor; and

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the laminated iron core of the rotor is projected from  
an axial direction length of an iron core of the stator.

10. A rotating machine according to claim 9, characterized  
in that

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an extension portion of a rotor bar is formed on an outer  
peripheral portion of an end ring;

thereby a magnetic field of an overhang portion of the  
laminated iron core of the rotor is formed validly.

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